

RESPONSE TO RESTRICTION REQUIREMENT
AND SUPPLEMENTAL PRELIMINARY AMENDMENT
U.S. Appln. No. 10/581,717

Atty. Docket No. Q95277

AMENDMENTS TO THE CLAIMS

1. (original): A protein having an endoglucanase activity and derived from a microorganism belonging to genus Staphylotrichum.

2. (original): The protein according to claim 1, having
 - (A) an encoglucanase activity, and
 - (B) the amino acid sequence of SEQ ID NO: 1 at the N-terminus thereof.

3. (original): The protein according to claim 2, having
 - (A) an encoglucanase activity,
 - (B) the amino acid sequence of SEQ ID NO: 1 at the N-terminus thereof, and
 - (C) an average molecular weight of 49 kD, determined by a sodium dodecyl sulfate-polyacrylamide gel electrophoresis.

4. (original): The protein according to claim 2, having
 - (A) an encoglucanase activity,
 - (B) the amino acid sequence of SEQ ID NO: 1 at the N-terminus thereof, and
 - (C) an average molecular weight of 45 kD, determined by a sodium dodecyl sulfate-polyacrylamide gel electrophoresis.

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5. (previously presented): The protein according to claim 1, derived from

Staphylotrichum cccosporum.

6. (currently amended): A protein selected from the group consisting of:

- (a) a protein comprising the amino acid sequence of SEQ ID NO: 3,
- (b) a modified protein comprising an amino acid sequence in which ~~one or plural to 30~~

amino acids are deleted, substituted, inserted, or added in the amino acid sequence of SEQ ID NO: 3, and having an endoglucanase activity, and

(c) a homologous protein comprising an amino acid sequence having at least an 85% homology with that of SEQ ID NO: 3, and having an endoglucanase activity.

7. (withdrawn): A polynucleotide encoding the protein according to claim 1.

8. (withdrawn): A polynucleotide selected from the group consisting of:

- (i) a polynucleotide comprising the nucleotide sequence consisting of nucleotides 64-948 of SEQ ID NO: 2,
- (ii) a polynucleotide comprising a nucleotide sequence in which one or plural nucleotides are deleted, substituted, inserted, or added in the nucleotide sequence consisting of nucleotides 64-948 of SEQ ID NO: 2, and encoding a protein having an endoglucanase activity, and

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(iii) a polynucleotide hybridizing under stringent conditions to a polynucleotide consisting of the nucleotide sequence consisting of nucleotides 64-948 of SEQ ID NO: 2, and encoding a protein having an endoglucanase activity.

9. (withdrawn): An expression vector comprising the polynucleotide according to claim 7.

10. (withdrawn): A host cell transformed with the expression vector according to claim 9.

11. (withdrawn): The host cell according to claim 10, wherein the host is a yeast or a filamentous fungus.

12. (withdrawn): The host cell according to claim 11, wherein the yeast is a microorganism belonging to genus Saccharomyces, Hansenula, or Pichia.

13. (withdrawn): The host cell according to claim 11, wherein the filamentous fungus is a microorganism belonging to genus Humicola, Trichoderma, Staphylocotrichum, Aspergillus, Fusarium, or Acremonium.

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14. (withdrawn): The host cell according to claim 13, the filamentous fungus is

Humicola insolens or Trichoderma viride.

15. (withdrawn): A process for producing the protein according to claim 1, comprising the steps of: cultivating a host cell transformed with an expression vector comprising a polynucleotide encoding the protein according to claim 1, and collecting the protein from the host cell or a culture obtained by the cultivation.

16. (original): A protein produced by the process according to claim 15.

17. (previously presented): A cellulase preparation comprising the protein according to claim 1.

18. (previously presented): A detergent composition comprising the protein according to claim 1.

19. (withdrawn): A method of treating a cellulose-containing fabric, comprising the step of bringing the cellulose-containing fabric into contact with the protein according to claim 1.

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20. (withdrawn): A method of reducing fuzzing of a cellulose-containing fabric or reducing a rate of the formation of fuzz, comprising the step of bringing the cellulose-containing fabric into contact with the protein according to claim 1.

21. (withdrawn): A method of reducing weight to improve the touch feel and appearance of a cellulose-containing fabric, comprising the step of bringing the cellulose-containing fabric into contact with the protein according to claim 1.

22. (withdrawn): A method of color clarification of a colored cellulose-containing fabric, comprising the step of bringing the colored cellulose-containing fabric into contact with the protein according to claim 1.

23. (withdrawn): A method of providing a localized color change to a colored cellulose-containing fabric, comprising the step of bringing the colored cellulose-containing fabric into contact with the protein according to claim 1.

24. (withdrawn): A method of reducing stiffness of a cellulose-containing fabric or reducing a rate of the formation of stiffness, comprising the step of bringing the cellulose-containing fabric into contact with the protein according to claim 1.

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25. (withdrawn): The method according to claim 19, wherein the treatment of the fabric is carried out by soaking, washing, or rinsing the fabric.

26. (withdrawn): A method of deinking waste paper, comprising the step of treating the waste paper with the protein according to claim 1.

27. (withdrawn): A method of improving a water freeness of paper pulp, comprising the step of treating the paper pulp with the protein according to claim 1.

28. (withdrawn): A method of improving a digestibility of animal feed, comprising the step of treating a cellulose-containing fabric with the protein according to claim 1.